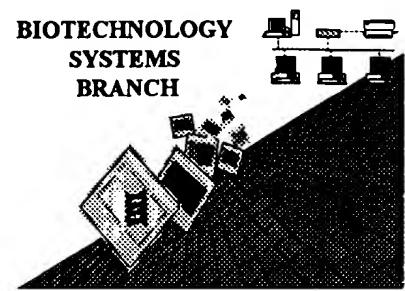


(W)itak

#11

BIOTECHNOLOGY  
SYSTEMS  
BRANCH



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number: 09/380,377

Art Unit / Team No.: 1632

Date Processed by STIC: 2/29/2000

**THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.**

**PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:**

**1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,**

**2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY**

**THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.**

**IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:**

**MARK SPENCER 703-308-4212**

REC'D BY MAIL  
FEB 19 2000  
RECEIVED  
MOSC TWENTIETH  
TELECOM

# Raw Sequence Listing Error Summary

#11  
L.T4801  
03/21/99

## ERROR DETECTED    SUGGESTED CORRECTION

SERIAL NUMBER: 09/382,377

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1	____ Wrapped Nucleic	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping".
2	____ Wrapped Aminos	The amino acid number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping".
3	____ Incorrect Line Length	The rules require that a line not exceed 72 characters in length. This includes spaces.
4	____ Misaligned Amino Acid Numbering	The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
5	____ Non-ASCII	This file was not saved in ASCII (DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
6	____ Variable Length	Sequence(s) ____ contain n's or Xaa's which represent more than one residue. As per the rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.
7	____ PatentIn ver. 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence.
8	____ Skipped Sequences (OLD RULES)	Sequence(s) ____ missing. If intentional, please use the following format for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (I) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS") (xI) SEQUENCE DESCRIPTION:SEQ ID NO:X: <b>This sequence is intentionally skipped</b>  Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
9	____ Skipped Sequences (NEW RULES)	Sequence(s) ____ missing. If intentional, please use the following format for each skipped sequence. <210> sequence id number <400> sequence id number 000
10	____ Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Use of <220> to <223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
11	____ Use of <213>Organism (NEW RULES)	Sequence(s) ____ are missing this mandatory field or its response.
12	____ Use of <220>Feature (NEW RULES)	Sequence(s) ____ are missing the <220>Feature and associated headings. Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown" Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
13	____ PatentIn ver. 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other means to copy file to floppy disk.

D. Wachtel

1632

PAGE: 1

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/380,377

DATE: 03/02/2000  
TIME: 14:39:52

Input Set: I380377.RAW

This Raw Listing contains the General Information  
Section and up to first 5 pages.

1 <110> APPLICANT: BULLEID, NEIL J  
2 <120> TITLE OF INVENTION: PROCOLLAGEN ASSEMBLY  
3 <130> FILE REFERENCE: 39-189  
4 <140> CURRENT APPLICATION NUMBER: US/09/380,377  
5 <141> CURRENT FILING DATE: 1999-09-16  
6 <150> EARLIER APPLICATION NUMBER: 9704305.3  
7 <151> EARLIER FILING DATE: 1997-03-01  
8 <160> NUMBER OF SEQ ID NOS: 18  
9 <170> SOFTWARE: PatentIn Ver. 2.0  
10 <210> SEQ ID NO 1  
11 <211> LENGTH: 23  
12 <212> TYPE: PRT  
13 <213> ORGANISM: Homo sapiens  
14 <400> SEQUENCE: 1  
15 Gly Gly Gln Gly Ser Asp Pro Ala Asp Val Ala Ile Gln Leu Thr Phe  
16 1 5 10 15  
17 Leu Arg Leu Met Ser Thr Glu  
18 20  
19 <210> SEQ ID NO 2  
20 <211> LENGTH: 23  
21 <212> TYPE: PRT  
22 <213> ORGANISM: Homo sapiens  
23 <400> SEQUENCE: 2  
24 Asn Val Glu Gly Val Thr Ser Lys Glu Met Ala Thr Gln Leu Ala Phe  
25 1 5 10 15  
26 Met Arg Leu Leu Ala Asn Tyr  
27 20  
28 <210> SEQ ID NO 3  
29 <211> LENGTH: 23  
30 <212> TYPE: PRT  
31 <213> ORGANISM: Homo sapiens  
32 <400> SEQUENCE: 3  
33 Gly Asp Asp Asn Leu Ala Pro Asn Thr Ala Asn Val Gln Met Thr Phe  
34 1 5 10 15  
35 Leu Arg Leu Leu Ser Thr Glu  
36 20  
37 <210> SEQ ID NO 4  
38 <211> LENGTH: 23  
39 <212> TYPE: PRT  
40 <213> ORGANISM: Homo sapiens  
41 <400> SEQUENCE: 4  
42 Gly Asn Pro Glu Leu Pro Glu Asp Val Leu Asp Val Gln Leu Ala Phe  
43 1 5 10 15  
44 Leu Arg Leu Leu Ser Ser Arg

Does Not Comply  
Corrected Diskette Needed  
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PAGE: 2

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/380,377**DATE: 03/02/2000  
TIME: 14:39:52

Input Set: I380377.RAW

45 20  
46 <210> SEQ ID NO 5  
47 <211> LENGTH: 22  
48 <212> TYPE: PRT  
49 <213> ORGANISM: Homo sapiens  
50 <400> SEQUENCE: 5  
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52 1 5 10 15  
53 Arg Leu Leu Ser Ala Ser  
54 20  
55 <210> SEQ ID NO 6  
56 <211> LENGTH: 22  
57 <212> TYPE: PRT  
58 <213> ORGANISM: Homo sapiens  
59 <400> SEQUENCE: 6  
60 Gly Asp His Gln Ser Pro Asn Thr Ala Leu Thr Gln Met Thr Phe Leu  
61 1 5 10 15  
62 Arg Leu Leu Ser Lys Glu  
63 20  
64 <210> SEQ ID NO 7  
65 <211> LENGTH: 22  
66 <212> TYPE: PRT  
67 <213> ORGANISM: Homo sapiens  
68 <400> SEQUENCE: 7  
69 Leu Asp Val Glu Gly Asn Ser Ile Asn Met Val Gln Met Thr Phe Leu  
70 1 5 10 15  
71 Lys Leu Leu Thr Ala Ser  
72 20  
73 <210> SEQ ID NO 8  
74 <211> LENGTH: 22  
75 <212> TYPE: PRT  
76 <213> ORGANISM: Homo sapiens  
77 <400> SEQUENCE: 8  
78 Val Asp Ser Glu Gly Ser Pro Val Gly Val Val Gln Leu Thr Phe Leu  
79 1 5 10 15  
80 Arg Leu Leu Ser Val Ser  
81 20  
82 <210> SEQ ID NO 9  
83 <211> LENGTH: 20  
84 <212> TYPE: DNA  
85 <213> ORGANISM: Artificial Sequence  
86 <220> FEATURE:  
87 <223> OTHER INFORMATION: Description of Artificial Sequence:RECOMBINANT  
PRIMER  
88  
89 <400> SEQUENCE: 9  
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91 <210> SEQ ID NO 10  
92 <211> LENGTH: 32  
93 <212> TYPE: DNA  
94 <213> ORGANISM: Artificial Sequence

PAGE: 3

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/380,377**

DATE: 03/02/2000  
 TIME: 14:39:52

Input Set: I380377.RAW

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95 <220> FEATURE:
96 <223> OTHER INFORMATION: Description of Artificial Sequence:RECOMBINANT
97 PRIMER
98 <400> SEQUENCE: 10
99 tcgcaggat ccgtcggtca cttgcactgg tt
100 <210> SEQ ID NO 11
101 <211> LENGTH: 21
102 <212> TYPE: DNA
103 <213> ORGANISM: Artificial Sequence
104 <220> FEATURE:
105 <223> OTHER INFORMATION: Description of Artificial Sequence:RECOMBINANT
106 PRIMER
107 <400> SEQUENCE: 11
108 aatggagctc ctggaccat g
109 <210> SEQ ID NO 12
110 <211> LENGTH: 32
111 <212> TYPE: DNA
112 <213> ORGANISM: Artificial Sequence
113 <220> FEATURE:
114 <223> OTHER INFORMATION: Description of Artificial Sequence:RECOMBINANT
115 PRIMER
116 <400> SEQUENCE: 12
117 ctgctaggta ccaaattggaa ggattcagct tt
118 <210> SEQ ID NO 13
119 <211> LENGTH: 21
120 <212> TYPE: PRT
121 <213> ORGANISM: Homo sapiens
122 <400> SEQUENCE: 13
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124 1 5 10 15
W--> 125 Xaa Xaa Ser Ser Arg
126 20
127 <210> SEQ ID NO 14
128 <211> LENGTH: 22
129 <212> TYPE: PRT
130 <213> ORGANISM: Homo sapiens
131 <400> SEQUENCE: 14
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133 1 5 10 15
W--> 134 Xaa Xaa Xaa Ser Ser Arg
135 20
136 <210> SEQ ID NO 15
137 <211> LENGTH: 9
138 <212> TYPE: PRT
139 <213> ORGANISM: Homo sapiens
140 <400> SEQUENCE: 15
141 Gln Leu Ala Phe Leu Arg Leu Leu Leu
142 1 5
143 <210> SEQ ID NO 16
144 <211> LENGTH: 250

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*Set 10 in Enclosure*  
*Part*  
*Line 10*

PAGE: 4

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/380,377DATE: 03/02/2000  
TIME: 14:39:52

Input Set: I380377.RAW

145 <212> TYPE: PRT  
146 <213> ORGANISM: Homo sapiens  
147 <400> SEQUENCE: 16  
148      Tyr Tyr Arg Ala Asp Asp Ala Asn Val Val Arg Asp Arg Asp Leu Glu  
149                1                5                10                15  
150      Val Asp Thr Thr Leu Lys Ser Leu Ser Gln Gln Ile Glu Asn Ile Arg  
151                20                25                30  
152      Ser Pro Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Arg Asp Leu  
153                35                40                45  
154      Lys Met Cys His Ser Asp Trp Lys Ser Gly Glu Tyr Trp Ile Asp Pro  
155                50                55                60  
156      Asn Gln Gly Cys Asn Leu Asp Ala Ile Lys Val Phe Cys Asn Met Glu  
157                65                70                75                80  
158      Thr Gly Glu Thr Cys Val Tyr Pro Thr Gln Pro Ser Val Ala Gln Lys  
159                85                90                95  
160      Asn Trp Tyr Ile Ser Lys Asn Pro Lys Asp Lys Arg His Val Trp Phe  
161                100                105                110  
162      Gly Glu Ser Met Thr Asp Gly Phe Gln Phe Glu Tyr Gly Gly Gln Gly  
163                115                120                125  
164      Ser Asp Pro Ala Asp Val Ala Ile Gln Leu Thr Phe Leu Arg Leu Met  
165                130                135                140  
166      Ser Thr Glu Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Val  
167                145                150                155                160  
168      Ala Tyr Met Asp Gln Gln Thr Gly Asn Leu Lys Lys Ala Leu Leu Leu  
169                165                170                175  
170      Lys Gly Ser Asn Glu Ile Glu Ile Arg Ala Glu Gly Asn Ser Arg Phe  
171                180                185                190  
172      Thr Tyr Ser Val Thr Val Asp Gly Cys Thr Ser His Thr Gly Ala Trp  
173                195                200                205  
174      Gly Lys Thr Val Ile Glu Tyr Lys Thr Thr Lys Thr Ser Arg Leu Pro  
175                210                215                220  
176      Ile Ile Asp Val Ala Pro Leu Asp Val Gly Ala Pro Asp Gln Glu Phe  
177                225                230                235                240  
178      Gly Phe Asp Val Gly Pro Val Cys Phe Leu  
179                245                250  
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181 <211> LENGTH: 251  
182 <212> TYPE: PRT  
183 <213> ORGANISM: Homo sapiens  
184 <400> SEQUENCE: 17  
185      Phe Tyr Arg Ala Asp Gln Pro Arg Ser Ala Pro Ser Leu Arg Pro Lys  
186                1                5                10                15  
187      Asp Tyr Glu Val Asp Ala Thr Leu Lys Ser Leu Asn Asn Gln Ile Glu  
188                20                25                30  
189      Thr Leu Leu Thr Pro Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys  
190                35                40                45  
191      Arg Asp Leu Arg Leu Ser His Pro Glu Trp Ser Ser Gly Tyr Tyr Trp  
192                50                55                60  
193      Ile Asp Pro Asn Gln Gly Cys Thr Met Glu Ala Ile Lys Val Tyr Cys  
194                65                70                75                80

PAGE: 5

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/380,377**DATE: 03/02/2000  
TIME: 14:39:52

Input Set: I380377.RAW

195 Asp Phe Pro Thr Gly Glu Thr Cys Ile Arg Ala Gln Pro Glu Asn Ile  
196 85 90 95  
197 Pro Ala Lys Asn Trp Tyr Arg Ser Ser Lys Asp Lys Lys His Val Trp  
198 100 105 110  
199 Leu Gly Glu Thr Ile Asn Ala Gly Ser Gln Phe Glu Tyr Asn Val Glu  
200 115 120 125  
201 Gly Val Thr Ser Lys Glu Met Ala Thr Gln Leu Ala Phe Met Arg Leu  
202 130 135 140  
203 Leu Ala Asn Tyr Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser  
204 145 150 155 160  
205 Ile Ala Tyr Met Asp Glu Glu Thr Gly Asn Leu Lys Ala Val Ile  
206 165 170 175  
207 Leu Gln Gly Ser Asn Asp Val Glu Leu Val Ala Glu Gly Asn Ser Arg  
208 180 185 190  
209 Phe Thr Tyr Thr Val Leu Val Asp Gly Cys Ser Lys Lys Thr Asn Glu  
210 195 200 205  
211 Trp Gly Lys Thr Ile Ile Glu Tyr Lys Thr Asn Lys Pro Ser Arg Leu  
212 210 215 220  
213 Pro Phe Leu Asp Ile Ala Pro Leu Asp Ile Gly Gly Ala Asp His Glu  
214 225 230 235 240  
215 Phe Phe Val Asp Ile Gly Pro Val Cys Phe Lys  
216 245 250  
217 <210> SEQ ID NO 18  
218 <211> LENGTH: 248  
219 <212> TYPE: PRT  
220 <213> ORGANISM: Homo sapiens  
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222 Tyr Tyr Gly Asp Glu Pro Met Asp Phe Lys Ile Asn Thr Asp Glu Ile  
223 1 5 10 15  
224 Met Thr Ser Leu Lys Ser Val Asn Gly Gln Ile Glu Ser Leu Ile Ser  
225 20 25 30  
226 Pro Asp Gly Ser Arg Lys Asn Pro Ala Arg Asn Cys Arg Asp Leu Lys  
227 35 40 45  
228 Phe Cys His Pro Glu Leu Lys Ser Gly Glu Tyr Trp Val Asp Pro Asn  
229 50 55 60  
230 Gln Gly Cys Lys Leu Asp Ala Ile Lys Val Phe Cys Asn Met Glu Thr  
231 65 70 75 80  
232 Gly Glu Thr Cys Ile Ser Ala Asn Pro Leu Asn Val Pro Arg Lys His  
233 85 90 95  
234 Trp Trp Thr Asp Ser Ser Ala Glu Lys Lys His Val Trp Phe Gly Glu  
235 100 105 110  
236 Ser Met Asp Gly Gly Phe Gln Phe Ser Tyr Gly Asn Pro Glu Leu Pro  
237 115 120 125  
238 Glu Asp Val Leu Asp Val Gln Leu Ala Phe Leu Arg Leu Leu Ser Ser  
239 130 135 140  
240 Arg Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr  
241 145 150 155 160  
242 Met Asp Gln Ala Ser Gly Asn Val Lys Lys Ala Leu Lys Leu Met Gly  
243 165 170 175  
244 Ser Asn Glu Gly Glu Phe Lys Ala Glu Gly Asn Ser Lys Phe Thr Tyr

PAGE: 6

VERIFICATION SUMMARY  
PATENT APPLICATION US/09/380,377

DATE: 03/02/2000  
TIME: 14:39:52

Input Set: I380377.RAW

Line ? Error/Warning

Original Text

123 W "N" or "Xaa" used: Feature required	Gly Asn Pro Glu Leu Pro Glu Asp Val Leu A
125 W "N" or "Xaa" used: Feature required	Xaa Xaa Ser Ser Arg
132 W "N" or "Xaa" used: Feature required	Gly Asn Pro Glu Leu Pro Glu Asp Val Leu A
134 W "N" or "Xaa" used: Feature required	Xaa Xaa Xaa Ser Ser Arg